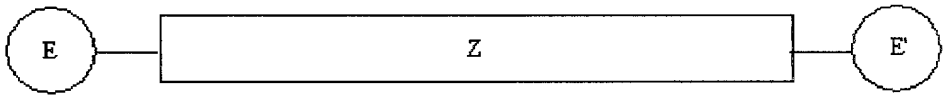
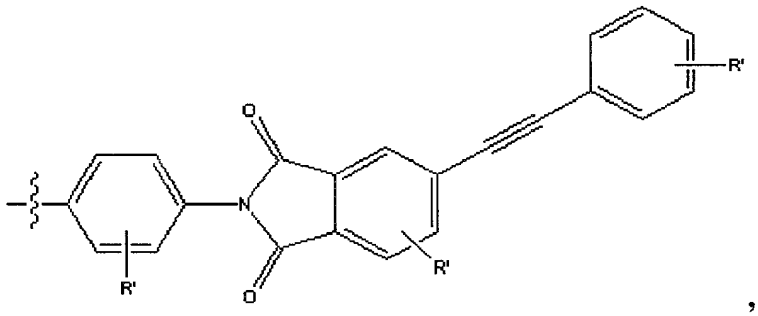
We claim:

1. An oligomer mixture with self-reactive end-caps comprising: the general structure



wherein Z is a liquid crystal backbone of the oligomer mixture selected from the group consisting of an ester, an ester-imide and an ester-amide,

wherein E and E' are selected from the group consisting of



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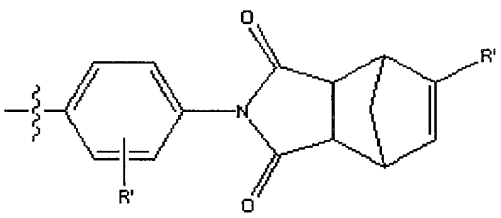

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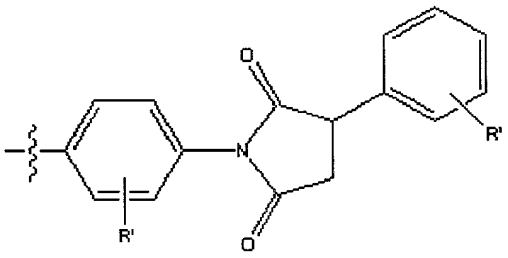
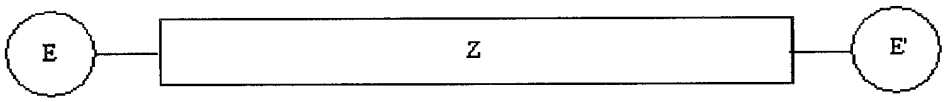


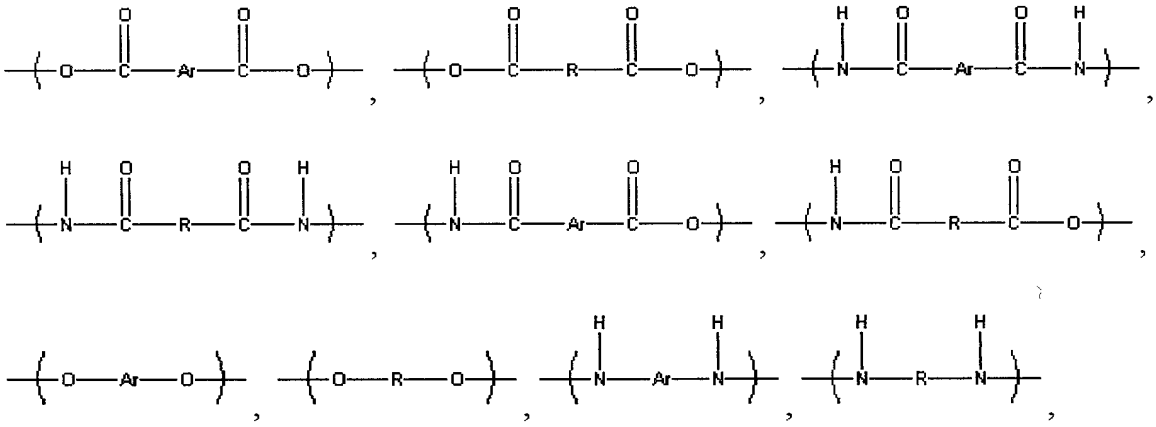
wherein R' is selected from the group consisting of hydrogen, alkyl groups containing six or less carbon atoms, aryl groups containing less than ten carbon atoms, lower alkoxy groups containing six or less carbons, lower aryloxy groups containing ten or less carbon atoms, fluorine, chlorine, bromine, and iodine.

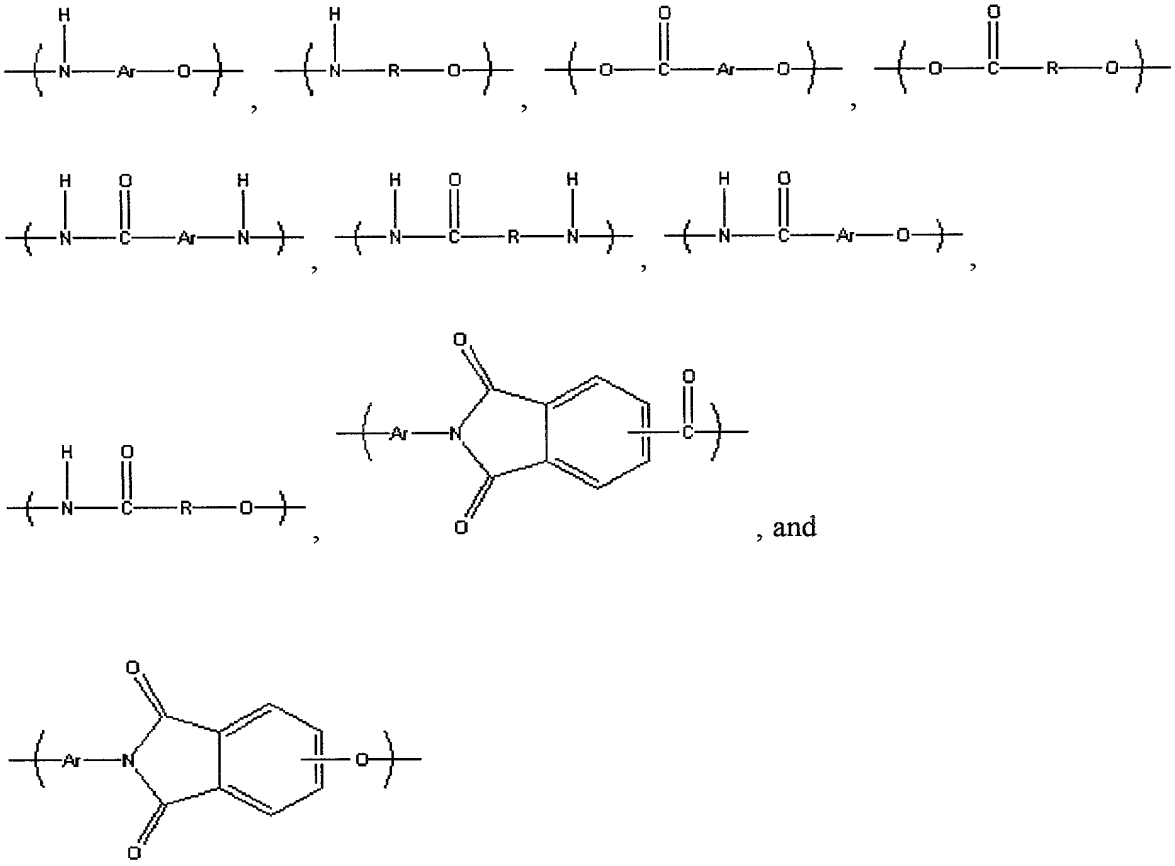
2. An oligomer mixture with self-reactive end-caps comprising:

the general structure



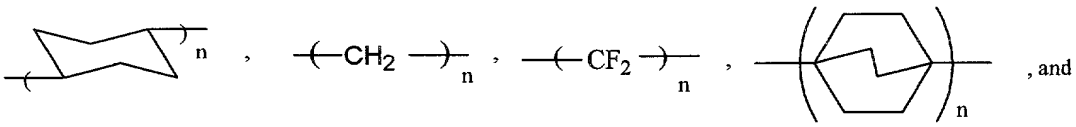
wherein Z is a liquid crystal backbone of the oligomer mixture having at least one structural repeat unit selected from the group consisting of





, and

wherein R is selected from the group consisting of



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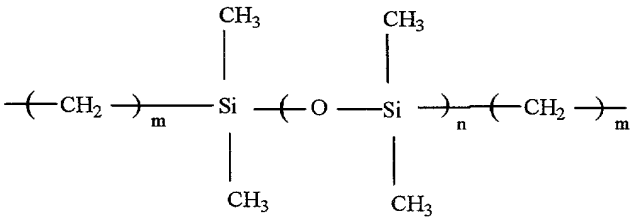
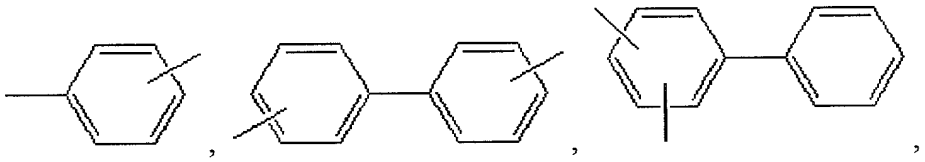


wherein n is a number less than 500,

wherein m is a number less than 500,

wherein Ar is selected from the group consisting of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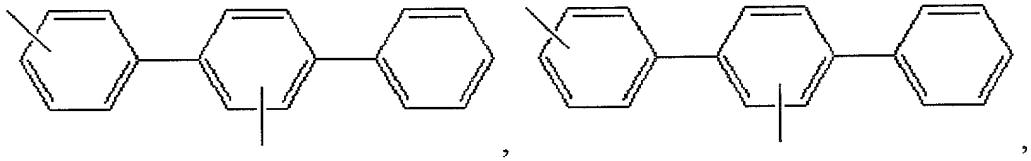
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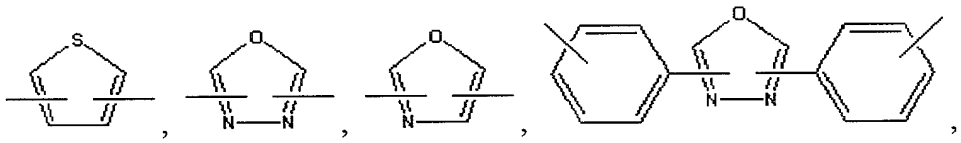
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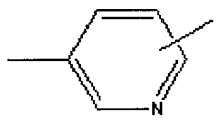
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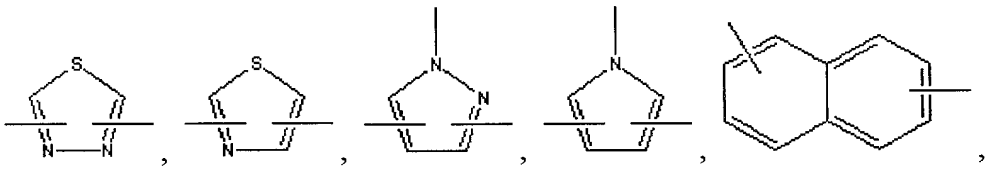
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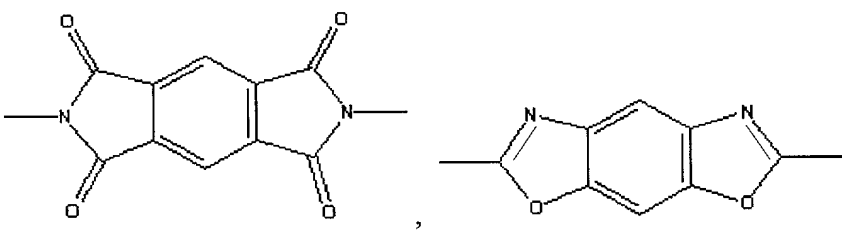
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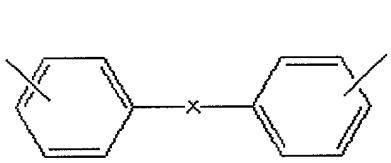
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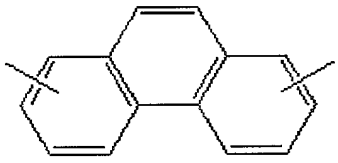
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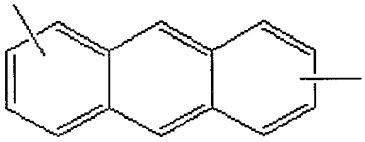
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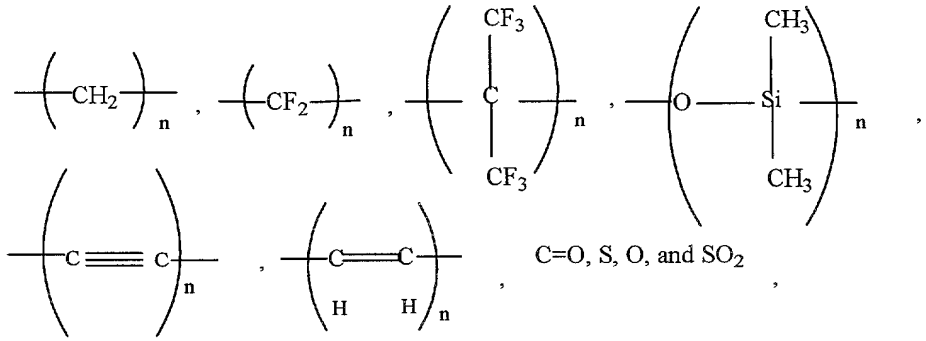
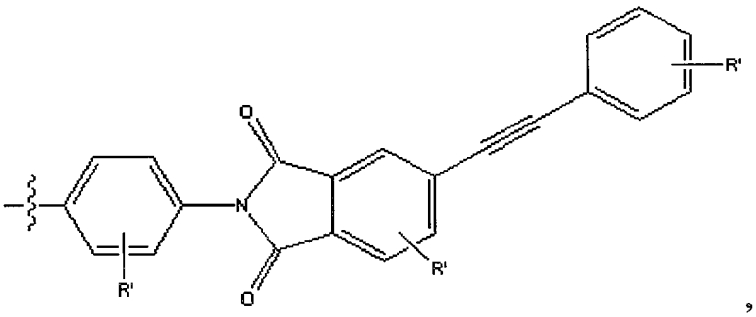
wherein X is selected from the group consisting of



wherein n is a number less than 500,

wherein E and E' are selected from the group consisting of



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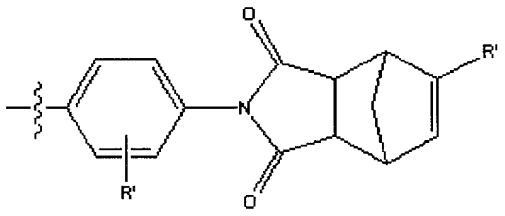
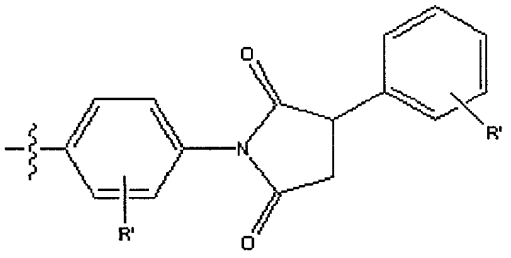


, and



wherein R' can be selected from the group consisting of hydrogen, alkyl groups containing six or less carbon atoms, aryl groups containing less than ten carbon atoms, lower alkoxy groups containing six or less carbons, lower aryloxy groups containing ten or less carbon atoms, fluorine, chlorine, bromine, and iodine.

3. An oligomer mixture with self-reactive end-caps as claimed in claim **1**, wherein E and E' are identical.

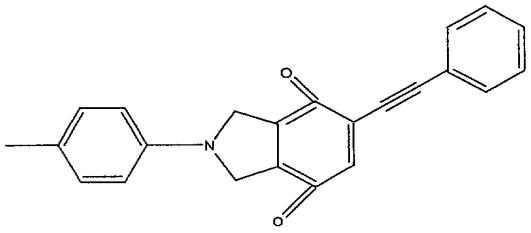
4. An oligomer mixture with self-reactive end-caps as claimed in claim **1**, wherein the molecular weight range of the oligomers is between approximately 1000 and approximately 15,000 grams per mole.

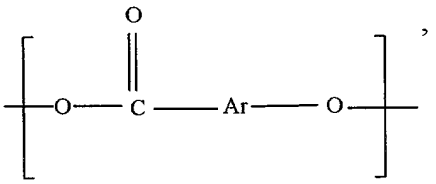
5. An oligomer mixture with self-reactive end-caps as claimed in claim **1**, wherein the melt viscosities of the oligomer mixture is between approximately 1 and approximately 250 poise at approximately 200° C to approximately 350° C.

6. A polymer product comprising an oligomer mixture with self-reactive end-caps according to claim **1** wherein said product is prepared by a process selected from the group consisting of melt processing, molding, fiber spinning, reactive injection molding (RIM), resin transfer molding (RTM), resin film injecting (RFI), powder molding, injection molding, blow molding, thermo-forming, plasma spraying, and pultrusion molding.

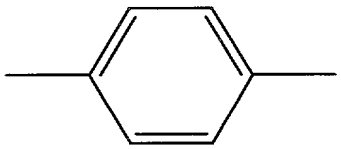
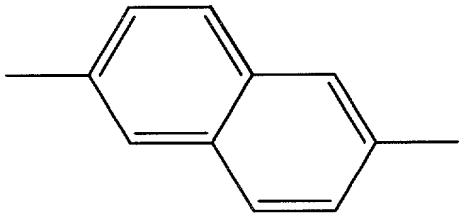
7. The polymer product of claim **1** wherein said product is a form selected from the group consisting of a fibre, filament, coating, film, lining, tube, pipe, sheath, sheet, and panel.

8. An oligomer mixture as in claim 2 wherein

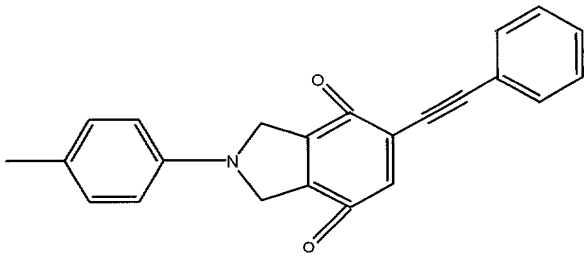
E and E' are 

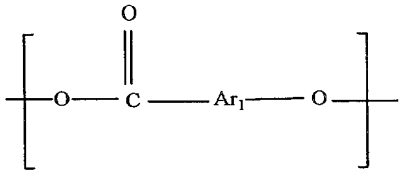
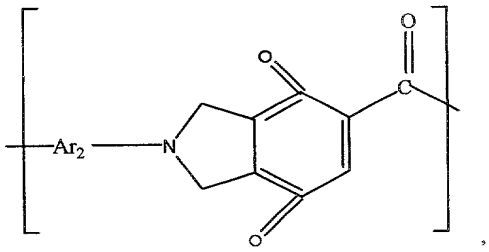
Z is 

wherein Ar is

 and 

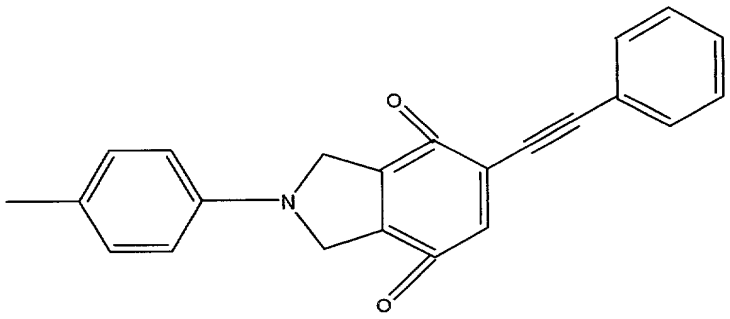
9. An oligomer mixture as in claim 2 wherein

E and E' are  ,

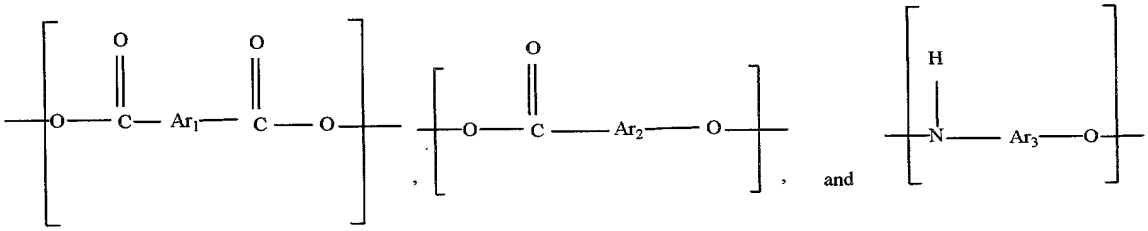
Z is  , and  ,

wherein Ar_1 and Ar_2 are  .

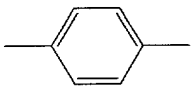
10. An oligomer mixture as in claim 2 wherein

E and E' are  ,

and Z is selected from the group consisting of



where Ar_1 and Ar_3 are



and Ar_2 is